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ABSTRACT

The outcomes of postsecondary developmental education programs in the state of Ohio are the focus of this report. Directors of over 50 developmental education programs funded partially by state funds were asked, in 1976, by a Subcommittee of the Ohio State-wide Advisory Committee on Developmental Education, to report on any efforts made to assess the impact of their programs. A total of 29 assessment reports from two- and four-year colleges were received. This report is divided into five sections; four sections summarize results of developmental education programs in terms of basic skills improvement, grade point averages (GPA), retention, and personal growth; the remaining section contains attachments, including the responses, in outline form, of the institutions reporting. The reports submitted indicate that developmental education programs and services have resulted in substantial, measurable improvement in basic skills, improvements in overall GPA and grades in related credit courses, higher retention rates, and varying levels of accomplishment of objectives relating to personal growth. (Author/JDS)

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RESULTS OF ASSESSMENT STUDIES OF DEVELOPMENTAL EDUCATION PROGRAMS IN OHIO

A Report Presented at the
Fourth Annual Ohio Developmental
Education Conference

by

The Subcommittee on
Measurement of Effectiveness

of the

Ohio State-Wide Advisory Committee on
Developmental Education

Richard C. Romoser, Chairman

October 18, 1976

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RESULTS OF ASSESSMENT STUDIES OF DEVELOPMENTAL EDUCATION PROGRAMS IN OHIO

INTRODUCTION

The benefits of operating developmental education programs across the State of Ohio are the focus of this report. These programs in state-assisted institutions of higher education are funded in part by the Ohio Legislature.

Directors of over 50 programs with state funding were asked to report any efforts to assess the impact of their programs. This request to program directors was made by a Subcommittee on Measurement of Effectiveness, organized by the Ohio State-wide Advisory Committee on Developmental Education. The Subcommittee was charged with the task of surveying the state-assisted developmental education programs to prepare a report on the results of the programs. The survey was conducted in early August, 1976.

Within two weeks program directors from 24 institutions responded to the Subcommittee's request, and 20 institutions eventually sent substantive reports on one or more developmental education program components. A total of 29 assessment reports were received.

The Subcommittee organized the reports according to the outcomes of the programs which were assessed. Some programs had the opportunity and the resources to assess only one outcome although a number of other benefits were expected and observed.

A common expression of the directors who were not able to report systematic assessment of outcomes was that the need for the program was greater than the resources available to the program, so all available effort was channeled into providing service. The Subcommittee is sensitive to this predicament, and will propose some steps program directors can take to assess program impact with minimal redirection of effort.

The remainder of the report has five sections. Four of the sections report results in terms of Improvement in Basic Skills, Grade Point Averages, Retention, and Personal Growth Objectives. The final section contains attachments, including a list of the subcommittee members, a list of institutions reviewing our request for information, a copy of the request, and the responses in outline form, referenced in parentheses in the body of this report.

IMPROVEMENT IN BASIC SKILLS

A primary objective of developmental education programs is the remediation of academic deficiencies involving the basic skills, including reading, writing and mathematics. A total of ten studies representing a variety of instructional programs, evaluated improvement in these areas. These studies clearly revealed that participation in the various programs did result in substantial, measurable improvement in basic skills.

A study conducted at Bowling Green State University (Newby) involving 31 developmental education students in individualized basic writing courses, and 41 regularly admitted students, found that participation in the individualized writing program decreased the difference in writing skills between developmental students and students admitted through regular admissions procedures.

Standardized test data involving 189 developmental students at Ohio University (Hollow) revealed substantial gain in specific reading skills as a result of participation in a Developmental Center Reading Program.

In a study involving students enrolled in developmental English, Math and Reading and Study Skills, courses at the University of Akron (McKoski) a comparison of pre and post test scores revealed average percentile gains of 17.5 in English, 26.8 in math and 12.6 in reading and study skills. In another study involving a questionnarie survey of a randomly selected sample of students enrolled in the reading and writing laboratory at the University of Akron, (McKoski) students and their instructors reported marked improvement in writing and reading proficiency.

A study involving 166 students enrolled in a developmental mathematics course at Lorain County Community College (Simmons) revealed that completion of the developmental math course resulted in a statistically significant improvement in basic arithmetic skills.

In a study involving 51 developmental education students who received individualized reading instruction at Rio Grande Community College (Koby) students showed an average gain of 3.2 grade levels in reading rate scores.

A sample of 163 students enrolled in the developmental reading program at Columbus Technical Institute (Pfannenstein) who completed pre and post tests, recorded an average gain of 1.6 years.

An entire group of 52 students enrolled in the Fall Quarter, 1975 [illegible]dy Skills course at Wright State University (Shearer) showed improve- [illegible] spelling. Seventy-three percent of the group improved in [illegible]ary and comprehension, and 83 percent improved in reading rate.

In a developmental English class at Youngstown State University, (McCracken) no student was able to transcribe a paragraph read to him when the class began, but that all but two students could after three

weeks of class. At the start of class the students could not recognize variances between their oral reading and the material they were reading; by the end of the third week, they could. Whereas only two students read a newspaper regularly at the start of class, all students in the class were reporting that they did so after three weeks.

Southern State College, North Campus (Abell) reported the results of a formative evaluation of their first year of operating a developmental education program. Their program was offered in three formats, each of which produced favorable results: Fourteen of 19 students who completed a math support program using the individualized format reported that they found it very helpful and would like to continue; 15 students in a subsequent program again were overwhelmingly in favor of the individualized approach; and 29 students receiving specialized tutoring gave an overwhelmingly positive response.

GRADE POINT AVERAGE RESULTS

A number of evaluation projects have found improvement in grades earned by students in developmental education. These results were in two general areas:

1. improved overall grade point average (GPA) and
2. improved grades in a related credit course.

Central State (Floyd) found that 70 percent of the students participating in the academic component of the developmental instruction program earned a grade of "C" or above in the developmental reading course; and 69 percent of participants in the mathematics laboratory course earned the "C" grade or above during the 1975-1976 academic year, a significant improvement over the 1974-1975 group.

A study at Kent State (Ralston) found that 379 "developmental" students, compared to a matched group of 379 non-participating students, improved their mean grade point average over one quarter (at the 95 percent level of confidence). Furthermore, although students in both groups were selected because of low grades, those who participated in the developmental program were able to maintain a grade point average above 2.00 even after they ended their participation.

At Akron University (McKoski) a study found that 20 percent of the students who averaged six or more sessions in the Reading and Writing Laboratory improved by two letter grades in their credit English courses. He also found that 60 percent of 140 students who received a passing grade in a developmental math course given in the Fall Quarter subsequently passed a regular credit math course in the Winter Quarter.

Ohio State University at Mansfield (Beekley) found that all 39 students completing an evaluation of the Educational Enrichment Laboratory felt "that classwork had improved."

At Agricultural Technical Institute (Swaino and Ponto) it was found that among 96 students who were tutored and reported course grades before and after tutoring, 59 percent improved their grade by one or two letter grades, 35 percent kept the same grade, and 6 percent received a one-letter grade decrease.

The Youngstown University report indicated that 63 percent of the 46 students who indicated that they received tutoring through the student development program reported that their grades improved, while 33 percent indicated that their grades did not improve and 4 percent were undecided.

Lorain County Community College (Simmons) found that among students whose test results showed they needed Developmental Education, those who actually took it averaged a higher grade in a subsequent English course

than those who needed Developmental Education but did not take it before their first English course. Average GPA's for the two groups were 1.50 and 1.36, respectively.

Ohio University (Willis and Blake) reported that over 50 percent of the students in Project Outreach improved in GPA from Fall to Winter Quarter.

Of 74 students receiving tutoring at Miami University--Middletown (Curran) in Fall, 1974, and 86 students being tutored in Fall, 1975, 54 percent and 53 percent respectively achieved final grades above expectations with this special assistance.

RETENTION

A number of evaluation reports were concerned with the retention of students receiving developmental services. Of course the basic intent of the services is to keep the "open door" from becoming a "revolving door."

The University of Cincinnati (no author) reported an overall retention of 94 percent in four developmental education programs compared to 85 percent in the remainder of the University College.

The University of Akron (McKoski) reported that 82 percent of students enrolled in Fall Quarter developmental math continued in the University Winter Quarter.

A Lorain Community College (Simmons) report showed that more students who needed developmental education stayed in college until the Spring Quarter when they actually took a developmental course compared to those students who did not take the needed course. Retention was 80 percent and 69 percent, respectively, in 1971-72 and 82 percent and 72 percent, respectively, in 1972-73, with 516 and 514 students tracked in the two years.

A Rio Grande (Koby) study found that 88 percent of the 51 students in a developmental education program finished the quarter still in the program.

A study reported by Ohio State at Marion (Roberts) found "an extremely low dismissal rate" (averaging less than 4/10% Summer, 1975, through Spring, 1976). The report indentifies the tutorial program as a positive factor.

A survey reported by Marion Technical College (Walton) found that among respondents, a greater proportion of the students graduated if they took some developmental education course. Respondents were graduates or former students (non-graduates). Forty-one percent of the graduates had taken developmental education courses compared to 14 percent of the former students. Apparently developmental education courses facilitate completion of the two-year degree programs at the college.

PERSONAL GROWTH OBJECTIVES

Improvement of basic skills or improvement in grade point average and retention of developmental education students are more objective outcomes than personal growth objectives. Personal growth objectives emphasize the following seven factors:

1. establishment of one's identity;
2. development of a realistic sex role;
3. the ability to determine one's future;
4. the development of increased self confidence;
5. the ability to recognize and appreciate one's own unique talents and abilities;
6. the ability to establish meaningful and lasting relationships; and
7. the ability to perceive oneself as a worthy and valuable human being.

Six institutions reported results pertaining to personal growth objectives. All reports indicated some accomplishment of the objectives.

Ohio University (Willis and Blake) reported its "Project Outreach" program, designed "to facilitate academic, social, and personal adjustment leading to academic success and personal satisfaction for Black freshman students." Results of the program showed that over 50 percent of the participants improved their GPA's in the Winter Quarter compared with earlier Fall Quarter GPA's. Fewer racial incidents occurred in the dormitories during 1975-76, and student evaluations indicated the helpfulness of the counselors in helping them adjust to the new environment.

A report from Shawnee State General and Technical College (McCoy) stated their goal as "to help students in developing a positive attitude toward college work and in adjusting to college-level courses." Students' evaluations revealed that these experiences provided improved self confidence and performance levels.

Cuyahoga Community College, Eastern Campus (Rosen) sought to develop and reinforce positive attitudes toward self through experiences and activities in accounting courses. In a population of 238 students, 93 students (approximately 40%) demonstrated improved competency. Participation in the program is voluntary and the remaining students in the program did not elect to participate long enough to provide sufficient data to analyze their competency development. The study assumed that receiving positive reinforcement and reward develops positive self-images (White's Competency Theory).

Bowling Green State University (Downs) sought to find the relationship between students' backgrounds and their career choices and to see if a variation in the students' self-esteem level produced a change in the career choices. These objectives were pursued in a Career and Life

Planning course. Sixty-one percent of the participating students experienced an increase in their self-esteem with increases ranging from 1 to 19 points on the Self Esteem Scale. Sixty-nine percent of the students indicated a change in their career choices during the time between enrolling and completing the course.

Assuming that disadvantaged students are not generally highly motivated to attend college, are slow in completing admission requirements, and are frequently suspicious of the college environment, the University of Toledo (Wadley) embarked on a Pre-College Advising (Recruitment) Program. Seventy-two percent of the 305 students in the program indicated the program had played a significant part in their decision to enter college and 80 percent felt there was a noticeable improvement in their study habits and knowledge of the college campus because of the program.

Cleveland State University (Pruitt) reported a counseling program the goal of which was: "To assist the non-traditional student in successfully meeting the challenges of the transition from high school to college by focusing on the student's academic and social adjustments and using a counseling team approach." Of the students in the program at least 85 percent were retained after their first year and 87 percent of the students showed personal growth improvement on attitude scales.

SUMMARY

A group of 20 institutions responded within a two-week period to a survey request for a copy of the report of any evaluative study of the impact of the developmental education program at the institution. The studies focused upon four types of outcome:

1. improvement in basic skills,
2. grade point average,
3. retention, and
4. personal growth objectives.

The studies reported that the developmental education programs were effective in improving writing skills, reading skills, basic math skills, study skills, and applications of language skills in proofreading and reading newspapers. Overall grade point averages for students in developmental courses improved more than GPA's for a control group, and the participants in the developmental courses were able to maintain a GPA above 2.00. Where control groups were not available, large percentages of students in developmental education courses were able to earn passing grades in other courses or to improve their grades in other courses. Two studies reported retention rates of students in developmental education courses higher than retention rates of regular students. The remaining studies reporting retention all indicated favorable results.

Similarly, the six studies of personal growth reported accomplishment of objectives such as self confidence and self esteem. Accomplishment of personal growth objectives was related to improved GPA, fewer racial incidents, compentency in accounting courses, career choice, improved study habits, knowledge of the college campus, and staying in college.

APPENDICES

APPENDIX A

Cuyahoga Community College
DISTRICT OFFICE 700 CARNEGIE AVENUE
CLEVELAND, OHIO 44115 (216) 241-5966

TO:

FROM: RCR
Richard C. Romoser, Chairman of the Subcommittee on "Measurement of Effectiveness" for Developmental Education

SUBJECT: Evaluation of Developmental Education Programs in Ohio

The Subcommittee on Measurement of Effectiveness for Developmental Education Programs in the State of Ohio is charged with the responsibility of developing a report which will convincingly and succinctly present the mangitude of the impact of Developmental Education Programs in the state. Ideally, the report will show that Developmental Education programs have meant significant improvements in student performances, or numbers of students who have completed educational programs, perhaps preparing for a career that would not have been open to them without it.

In view of the seriousness of our charge, and its potential effect in terms of state level financing, I have outlined a plan for reporting the results of your own evaluation of at least one component of your Developmental Education Program. As you all know, the state's allocation to Developmental Education decreased by two percent over last year, and there is the possibility that another two percent will be lost this year. We are hoping that we can reverse this reduction by providing overwhelming evidence to show the benefits of the Developmental Education Program in Ohio.

We are asking Developmental Education directors throughout the State of Ohio to submit an evaluation of at least one Developmental Education component, preferably in the format of our outline, by August 16, 1976, so that we can prepare our report to the Ohio Board of Regents by September 6.

I am attaching a copy of our suggested outline for evaluations and a few sample evaluations. Please contact me at (216) 241-5966, ext. 308 if you have any questions. If you would like to contact them, the other members of this Subcommittee are:

Mr. George Simmons
Director of Developmental Education
Lorain County Community College
1005 N. Abbe Rd.
Elyria, Ohio 44055

Mr. Murray Kenna
Director, Institutional Research
Sinclair Community College
140 South Perry Street
Dayton, Ohio 45402

Dr. Ralph Pruitt
Dean, Division of Special Studies
Cleveland State University
Euclid Avenue
Cleveland, Ohio 44115

Ms. Peggy Merrill
Franklin University
Columbus, Ohio 43215

RCR:jl
Attachments

OUTLINE*

REFERENCE (Person to contact or author):

TITLE OF REFERENCE PERSON:

SCHOOL:

DESCRIPTIVE TITLE OF STUDY:

PERIOD OF TIME COVERED BY STUDY:

DATE OF REPORT:

Population:

Sample:

Design:

Treatment:

Measurements:

Program Goals (i.e., higher GPA, retention, etc.):

Results:

Conclusions:

Further Comments:

*Please submit your evaluation in this form whenever possible.
Use additional sheets to allow for spacing.

APPENDIX B

OHIO COLLEGES AND UNIVERSITIES RECEIVING MEASUREMENT OF EFFECTIVENESS SURVEY

UNIVERSITY-MAIN CAMPUSES

Bowling Green State University
Bowling Green, Ohio

Central State University
Wilberforce, Ohio

University of Cincinnati
Cincinnati, Ohio

Cleveland State University
Cleveland, Ohio

Kent State University
Kent, Ohio

Miami University
Oxford, Ohio

Ohio State University
Columbus, Ohio

Ohio University
Athens, Ohio

University of Akron
Akron, Ohio

University of Toledo
Toledo, Ohio

Wright State University
Daton, Ohio

Youngstown State University
Youngstown, Ohio

BRANCHES

Wayne General and Technical
University of Akron
Orrville, Ohio

Firelands Campus
Bowling Green State University
Bowling Green, Ohio

Clermont General and Technical
University of Cincinnati
Batavia, Ohio

R. Walters General and Technical
University of Cincinnati
Cincinnati, Ohio

Regional Campuses
Kent State University
Kent, Ohio

Hamilton Campus
Miami University
Hamilton, Ohio

Middletown Campus
Miami University
Middletown, Ohio

Agricultural Tech. Institute
Ohio State University
Wooster, Ohio

Belmont Campus
Ohio University
St. Clairsville, Ohio

Chillicothe Campus
Ohio University
Chillicothe, Ohio

Lancaster Campus
Ohio University
Lancaster, Ohio

Zanesville Campus
Ohio University
Zanesville, Ohio

Western Ohio Branch Campus
Wright State University
Celina, Ohio

COMMUNITY COLLEGES

Cuyahoga Community College
Cleveland, Ohio

Lakeland Community College
Mentor, Ohio

Lorain County Community College
Elyria, Ohio

Rio Grande Community College
Rio Grande, Ohio

Sinclair Community College
Dayton, Ohio

STATE GENERAL AND TECHNICAL COLLEGES

Edison State General & Technical College
Piqua, Ohio

Shawnee State General & Technical College
Lucasville, Ohio

Southern State General & Technical College
Wilmington, Ohio

TECHNICAL COLLEGES

Belmont Technical College
St. Clairsville, Ohio

Cincinnati Technical College
Cincinnati, Ohio

Clark Technical College
Springfield, Ohio

Columbus Technical Institute
Columbus, Ohio

Hocking Technical College
Nelsonville, Ohio

Jefferson County Technical Institute
Steubenville, Ohio

Muskingum Area Tech. - Ohio University
Zanesville, Ohio

Northwest Technical College
Archbold, Ohio

Michael J. Owens Tech. College
Perrysburg, Ohio

Terra Technical College
Fremont, Ohio

Washington Technical College
Marietta, Ohio

TWO-YEAR INSTITUTIONS SHARING ONE

Lima Campus - OSU/Lima Tech.
Lima, Ohio

Marion Campus - OSU
Marion, Ohio

Marion Tech. College - OSU
Marion, Ohio

Mansfield Campus - OSU
Mansfield, Ohio

North Central Tech. - OSU
Mansfield, Ohio

Central Ohio Tech.
Newark, Ohio

Stark Campus - KSU
Canton, Ohio

Stark Tech. College - KSU
Canton, Ohio

Southern State General & Tech.
Sardina, Ohio

APPENDIX C

REFERENCE: Swaino, Jean and Dr. Kim Ponto

TITLE: Coordinator, Developmental Education

SCHOOL: Agricultural Technical Institute

TITLE OF STUDY: Effectiveness of ATI Tutorial Program

DATES OF STUDY: Academic Year 1975-1976

DATE OF REPORT: August 26, 1976

Population: Agricultural Technical Institute students who were accepted into the ATI Tutorial Program.

Sample: All students (189 in number) in the population were studied.

Design: Data was collected and summarized from student evaluation forms of the ATI Tutorial Program.

Treatment: Subjects were participants in the ATI Tutorial Program.

Measurement: Pre-tutorial grades were compared with final course grades of all student participants. No special considerations were given to students entering the program early or late (i.e. 8th week) in the academic quarter.

Results and Conclusions: Table #1 shows the results of the grade comparisons.

1. Of the participants, 5.8 percent demonstrated a two-letter grade increase.
2. A one-letter grade increase was demonstrated by 24.3 percent of the students.
3. Eight percent of the student participants maintained their original passing grade.
4. A pre-tutorial failing grade was maintained by 9.6 percent of the students.
5. A one-letter decrease in final grade was demonstrated by 3.1 percent of the participants.
6. For 49.2 percent of the student participants, this comparison could not be made.

A total of 38.1 percent of the students in the ATI Tutorial Program received a final grade higher than their pre-tutorial grade or retained their same passing grade showing that they benefitted from the tutorial assistance offered.

TABLE #1: Effect of the ATI Tutorial Program on Student Grades - For the Academic Year 1975-1976. Results are reported as a percent.

Category	Percent
1. Tutored students who received a two-letter grade increase.	5.8
2. Tutored students who received a one-letter grade increase.	24.3
3. Tutored students who retained a passing grade.	8.0
4. Tutored students who retained a failing grade.[1]	9.6
5. Tutored students who received a one-letter grade decrease.	3.1
6. Grade of student before tutoring began was unknown so a comparison could not be made or student dropped the course.[2]	49.2

[1]Tutored students who retained a failing grade - entered the Tutorial Program too far into the quarter to receive substantial help.

[2]Students did not supply sufficient grade information on evaluation forms.

REFERENCE: Raymond A. Downs, Ed.D

TITLE: Director, Student Development Program

SCHOOL: Bowling Green State University

TITLE: Career Education, Career Counseling for Minority Students

DATES OF STUDY: Winter and Spring Quarters, 1976

DATE OF REPORT: July, 1976

POPULATION: Minority students who are members of the Student Development Program and were enrolled in a course - CAREER and LIFE PLANNING - developed and taught by the Director of the Student Development Program.

SAMPLE: Twenty-four from the Winter Quarter Course and twelve students from the Spring Quarter class. Of the thirty-six students who began the course, complete data was collected on twenty-six of the students.

DESIGN: The effects of the course work during a ten week period was analyzed according to three sources of data:

1) The students' background, sex, age, classification (Freshman, Sophomore, etc.), major, and geographic area of permanent residence (rural, suburban, or urban).

2) Assessment of the students' level of self-esteem.

3) Assessment of the students' vocational choices.

The data collected was manipulated by control data 360 Model 75 Computer using (SPSS) techniques of analysis - such as, codebook and Pearson Product Moment Correlation to answer the following questions:

1) What is the relationship between a students' background and his career choice.

2) Does a variation in the students' self-esteem level produce a change in the students' career choice.

TREATMENT: Course activities included small group sessions involving self-disclosure and self-exploration, self-assessment, exposure to career development and vocational stages, value clarification, vocational exploration and development of a career and life plan of action.

MEASUREMENTS: Coopersmith Self-Esteem Inventory, Form A - Holland's Self-Directed Search, and the Downs' Socio-Economic Status Inventory.

RESULTS: Our initial class sessions with the students confirmed our feeling that the students lacked information and had little consideration for a career area, let alone a specific occupation to pursue at the end of the college experience. As a result, a course of 10 weeks in duration covering a variety of activities is only the beginning step in bringing about some awareness, concern, and the need to do some planning on the part of the students. The concentration on the self-manifested in self-exploratory activities appeared to be the most beneficial and enjoyable activities as seen by the students. The level of participation and interest on the part of the students lessened when attention was turned from dealing with the self to considering career development resources and occupational information.

The analysis of the data collected on the study group indicated 61% of the students made some increase in their self esteem levels during the ten week course. The increase ranged from 1 to 19 points on the Self Esteem Scale.

Sixty-nine percent of the students indicated a change in their career choices between the time they enrolled in the course and the completion of the ten week sessions. The career choices were social occupations which included educational and social welfare occupations. Their career choices revealed an interest in social occupations (SEI) relative to serving and helping people. After the ten week course, their interests were still in social occupations (SCE) but those related to enterprising and business activities. It seems the better they felt about themselves, the more aggressive kind of role they were interested in playing.

The final outcome of their participation in the Career and Life Planning Course was revealed in the students' development of a Plan of Action. The Plan of Action portrays the effects of the course providing students with guidelines, perceptions, and assessment of various career areas and occupations which necessitate a need for educational training.

CONCLUSIONS:

There are three functions which may be properly expected of the educational system related to Career Education and/or Career Development. They are -- to help the students with appropriate abilities and attitudes to get into occupations where they are most likely to find ego-involving jobs; to help all youth to find some sort of ego-involving, socially constructive activity; and, to reduce the number of alienated youth. (Robert Havighurst, 1964).

Given the preceding data, it seems apparent that a Career and Life Planning Course for minority students provides the essential ingredients for the development of an occupational identity.

A course such as the Career and Life Planning course provides for the student self-exploration and experience leading to the building of attitudes which lead to ego-involving work. In addition, it can be the vehicle employed by counselors enabling them to encourage students to take work and seek experiences that would expand their leisure interests and interests in non-work aspects of society.

REFERENCE: John F. Newby

TITLE: Director, Developmental Education Program

SCHOOL: Bowling Green State University

STUDY: The Effects of Two Instructional Programs on Freshman Writing Skills

DATES OF STUDY: Spring Quarter, 1975

DATE OF REPORT: August, 1976

Population: Freshman students enrolled in a basic writing course.

Sample: Thirty-one developmental education students who were enrolled in individualized basic writing courses provided through the Developmental Education Program and forty-one regularly admitted students who were enrolled in conventional lecture-recitation sections of the same basic writing course.

Design: The students were enrolled in four different sections of the University's basic writing course. Two instructors each taught a regular section and an experimental section consisting of developmental education students. At the beginning of the quarter all students wrote a three hour pre-test. The possibility of being exempted from the course was the incentive provided to encourage students to do their best. At the end of the quarter all students took the proficiency exam (post-test) which was also three hours in length. Topics for each exam were the same. Students, however, were not aware of this fact. This was to prevent students from completing papers on any of the topics prior to the proficiency exam. The incentive for students to do well on the proficiency exam was the fact that they must pass the exam to get credit for the course. Writing improvement was assessed by comparing performance on the pre-test with their performance on the proficiency exam.

Treatment: Students in the experimental sections attend classes that include additional supportive services. Course material is broken down into modules through which students progress at different rates. Tutors or instructional assistants are assigned to each class so that the student/teacher ratio is kept low and the amount of individualized attention that each student receives is maximized. Since course material is organized sequentially and student needs are diagnosed at the beginning of ther term, each person can be placed at the point in the curriculum dictated by his strengths and weaknesses. Individual prescriptions are modified as the student progresses.

Measurement: The papers written by the students were read and evaluated by trained raters. Scores were obtained for the following variables:

1. Words per T-unit
2. Mechanical errors per 100 words
3. Syntactical errors per 100 words
4. Expression
5. Organization
6. Mechanics
7. Sentence structure
8. Word choice

Program Goals: The primary purpose of the study was to compare the performance and rate of growth of developmental education students taking a basic writing course through a program which stresses individualizing and modularizing of subject content with the performance of students in regular sections of the University's freshman writing program.

Results: There was a significant difference in the pre-test scores of developmental education students and students enrolled in regular sections of the basic writing course. The control group had the more favorable scores in each variable. Post-test scores, however, showed a significant reduction in the discrepancy between the two groups on each variable. The conclusions drawn from the results are that the experimental group's rate of growth as determined by the difference between the pre- and post-test results was more impressive than the control group's rate of growth. Means and standard deviations for each group on the eight variables are presented on the enclosed table.

Conclusions and Comments: Results show that individualizing of instruction can result in a decrease in the differences in writing skills of developmental education students and students admitted to the University through regular admissions procedures. Since developmental education students at Bowling Green continue to receive supportive services after they complete the basic writing course, experimental group students should demonstrate additional growth during their freshman and sophomore years.

REFERENCE: William Floyd, Ph.D.

TITLE: Director, Quad Programs

SCHOOL: Central State University

TITLE OF STUDY: ANALYSIS OF SOME PERTINENT VARIABLES IN THE SPECIAL SERVICES/ DEVELOPMENTAL INSTRUCTION PROGRAM

PERIOD COVERED: 1974-75 and 1975-76 Program Years

REPORT DATE: August, 1976

Population: Students of the University who participated in the 1975-76 academic year Special Services/Developmental Instruction Program are the prime group; some comparative data from the 1974-75 program are also utilized.

Sample: The group identified as the population

Design: Identified students emanated from all grade classifications specific to the named program. Experiences were not controlled. Academic support units were established in five academic departmental areas: Business Administration, Accounting, Sociology, Foreign Languages, and Mathematics. These units were placed under the direction of departmental chairpersons for the provision of tutoring, and other student support services.

Achievement testing (prior and post) was utilized for student participants in developmental English, and in the reading and mathematics' laboratories. Growth and other diagnostic factors were sought. The laboratories are considered functional remediation units.

Treatment: Developmental education efforts are polydimensionally focused upon the retention and growth of each individual student. Treatment pervades the academic component, the supportive unit (made up of peer and tutor student mentors), and the diagnostic unit, which involves testing and test interpretation. Tutors function individually and in group settings; they also assist as readers.

Measurements: Grade point averages provide a student index which is typically available. The California Achievement Test is administered to each program participant before and after a prescribed academic sequence. It provides a diagnostic and a prescriptive service. Group scales, ranks, and other statistical treatments are compared and analyzed.

An analysis is also made of the effectiveness of tutors and peers upon the students worked with during the evaluated sequence. The analysis includes the number of these contact hours.

Comparisons of performance by sex, age, and status groupings were also accomplished: commuter versus dormitory type, full time versus part time group types.

Results and Conclusions: The number of students supported by Special Services/ Developmental Instruction funds were increased by 145% over the previous academic year (1974-75). Of students participating in the academic component, 70% earned the letter grade of "C" or above in the developmental reading course; and 69% of participants in the mathematics laboratory course earned the "C" grade or above during the 1975-76 academic year, a significant improvement over the 1974-75 group in either category.

During the 1975-76 academic year, the average participant, generally, raised the reading level 2.13 years in a 30 week period. Females increased levels .43 points above average male scores (data does not reflect initial level of the scores).

The 23 to 26 years-of-age group tended to show the higest score increases: 2.28 points above the under 18 years-of-age group, whose average score is 1.23 years of growth. Commuter students tended to higher increases than students residing in dormitories. Commuters scored increases of 3 years, or 1.31 years greater growth than the dormitory dweller. A breakdown of types within the dormitory and commuter group was not extended into age, sex or part and full time categories. It would probably prove interesting to assess major subject area concentrations, dormitory and private home environments, as well as other variables for impact significance.

The number of students tutored increased 127.22% over this category in 1974-75. Some of the significant growth is, no doubt, related to improved data collection procedures.

Comments: Although other variables were not controlled or measured, it seems profoundly clear that Developmental Instruction is pertinent and significant to the academic and personal growth of students. In its present context, only a limited number of students benefit from its availability and funding. This funding rate is decreasing, rather than increasing, because of inflationary factors and the legislatures reticence specific to increased levels of funding.

Improved models of delivery in the area of Developmental Instruction are being tried to reduce costs, and to improve its effectiveness. The critical factor derived from the above data is that a concerted effort does produce clearly positive results; that funds for the process are effectively spent.

OUTLINE

REFERENCE:	Dr. Ralph L. Pruitt
TITLE OF REFERENCE PERSON:	Dean, Division of Special Studies
SCHOOL:	Cleveland State University
DESCRIPTIVE TITLE OF STUDY:	Annual Report of the Division of Special Studies 1975-76 and the HEW Proposal for 1976-77 funding
PERIOD OF TIME COVERED BY STUDY:	Academic Year 1975-76
DATE OF REPORT:	June 30, 1976

POPULATION: 853 students who received academic supportive services in Student Development Program of the Division of Special Studies

SAMPLE: There were 617 freshmen students, 159 sophomores, 37 juniors, 30 seniors, and 10 graduate students. For the undergraduate students (843), 66% (560) were Black, 5% (40) were Spanish speaking, 1% (8) were Asian Americans, 1% (8) were Limited Speaking Ability, and 27% (227) were Caucasian. One hundred twelve of the total population of 843 were physically disabled.

DESIGN: Students were identified as Student Development Students according to the following criteria:

1) completion of 10 college preparatory units in high school
2) low family income according to federal guidelines
3) resides in a Model Cities area
4) physically disability

Goals are stated which assign responsibilities to the academic support components as follows:

1. Counseling Component
   Goal: To assist the non-traditional student in successfully meeting the challenges for transition from high school to college, focusing on the students' academic and social adjustments and using a counseling team approach.

   Among the evaluative criteria selected to measure this objective was the retention of at least 87% of the students for their first year.

2. Specialized Counseling
   Goal: To enhance the effectiveness of counseling services for students in the Student Development Program through research, development activities, and implementation of programs that relate to attrition-retention and career development of students and financial aid opportunities.

This objective was primarily measured by documentations showing students' participation in the Prevention of Academic dismissal (PAD) sessions and those showing the number and amount of financial aid awards made to them.

3. The Learning Center
Goal: To provide students who have certain inequities in their academic/socio-cultural backgrounds with and academic and counseling supportive service within a learning environment that will enable them to compete in today's social and academic world.

Evaluative criteria for this objective indicated that students were expected to perform at satisfactory levels which were spelled out in detail for Reading Development, the Writing Lab, the Math Workshops, and the supplemental seminars to the courses in students which students were enrolled.

4. Tutorial Services
Goal: To implement a comprehensive tutorial services program which will provide for individual as well as group tutoring for all students at Cleveland State University.

Evaluative criteria indicated success if at least 85% of all students requesting the services could be assigned tutors and at least 70% of this number served satisfactorily.

5. Physically Disabled
Goal: To provide an academic and socio-cultural development program to enable the physically limited individual through the mainstream of the university, to function adequately and optimally both personally and professionally within the academic, social, and broader communities.

Documentations of grades earned and growth in social adjustment were the primary means of evaluation among the several used.

TREATMENT: Entering students are administered a battery of tests to help determine their weaknesses. High school G.P.A., class rank, and some subjective measures are considered also. This procedure affords the counselor the opportunity to make better prescription of developmental courses and experiences for the students. Documentation of progress of students is made three times a quarter by counselors while peer-counselors meet with smaller groups of counselees on a biweekly basis to document progress or problems. Problems are referred to the proper component within the program, within the university, or outside the university.

Developmental courses, tutoring, counseling by professionals, paraprofessionals and peers, diagnostic testing, reading, writing, math, and discussion groups are vehicles for the various services.

MEASUREMENTS: Grade Point Averages of Students were documented, counts of all counseling contacts were made (academic, personal, community-family, financial, tutorial).

The Wide Range Achievement Tests (WRAT) and Triggs' Diagnostic Reading Tests (DRT) were administered in pre- and post-tests forms to ascertain achievements of students.

RESULTS: Documents show a retention rate above the freshman level of 69%, that Student Development students perform well scholastically after leaving the program, that 77 former students of the program graduated in 1974-75. Students who were enrolled in the various seminars and academic support courses completed them satisfactorily at a rate of 85%.

CONCLUSIONS: It appears that the Student Development Program at Cleveland State University is doing a creditable job according to certain of its documentations including survey questionnaires completed by students after they had received the services.

REFERENCE: Pruitt, Ralph L.

TITLE: Dean, Division of Special Studies

SCHOOL: Cleveland State University

TITLE OF STUDY: Annual Report of the Division of Special Studies, 1972-73

DATES OF STUDY: Academic Year 1972-73

DATE OF REPORT: No Date

Population: 603 students who received academic supportive services in the Student Development Program and more than 435 students who received services in the Learning Center offered under the aegis of the Division of Special Studies.

Sample: A number of groups were studied. The Student Development Group included 140 new freshmen, 403 other freshmen and non-freshmen, and an additional 60 physically handicapped students. The sample was 64 percent Black, 33 percent White, 3 percent of Spanish descent, and less than one percent American Indians and Orientals. Characteristics of other groups studied were not reported.

Design: The students identified for DSS were described in terms that seemed appropriate to the directors of the separate program components. No overall evaluation objectives were stated nor apparent. DRT pre-and post-tests were administered in rate of reading. Students were recommended for regular freshman level composition or math courses upon the achievement of entry level requirements. Counts of these students were recorded. In other areas of service, the program activities were described in relation to program objectives, but achievement outcomes were not quantified.

Treatment: The supportive services were described in detail. They included developmental course, tutoring, counseling by professionals, para professionals and peers, the learning center which provided services in diagnostic testing, developmental reading, writing and math, and discussion groups in discipline according to student enrollment.

Measurements: Grade point averages (GPA) were recorded by College (Division of Special Studies, Arts & Sciences, etc.) and/or by course. Counts of counseling contacts by type (academic, personal, community-family, or financial) were recorded. Students were counted by community contact (near West Side, Model Cities, Glenville and Mt. Pleasant). The contacts with the students, the home visits, the job placements, and the referrals to community agencies were counted by community contact. Student advisor contacts were counted in the peer counseling program. The WRAT (Wide Range Achievement Test) Math and Spelling tests and the DRT (Triggs' Diagnostic Teading Test) were administered. Apparently, the DRT was both a pre- and a post-test.

Results: The 603 student development program enrollees were classified by college. The GPA means were calculated by term. As expected each quarter, those students who had transfered from DSS (Division of Special Studies) to another undergraduate college of the university earned higher GPAs.

The cumulative hours earned for DSS students was lower than the cumulative hours attempted each quarter, while for students who transfered to other colleges, the situation was reversed. (Physical Education course, Pass-Fail courses, and credits transfered into CSU are not counted as hours attempted.)

The activities of the various programs of service were described: 4,796 student contacts by teacher-counselors; 992 contacts with 302 students in Community centers, with 119 home visits, 113 job placements and 118 referrals to community agencies; 6,986 counseling sessions with peer counselors; and 39 faculty members and 28 persons from the community helped students through DSS.

Forty-eight percent (209) students in the Learning Center scored above the beginning 8th grade level on the WRAT. The other 52 percent (226) were referred to the Math Workshop. In Reading, 291 (67 percent) were referred to Developmental Reading. Thirty-nine (9 percent) scored in or above the range for the Average College Freshman in the United States.

Seven percent of 356 students taking a pre-test in rate of reading scored in the word-per-minute range for average college freshmen in the United States. After ten weeks of instruction, 94 percent were in the average range or above. Six percent scored below the average range. Ninety-six percent of those enrolling in the Developmental Reading Course completed it (356 out of 372).

One hundred six of 125 students (85 percent) who enrolled in the Writing Labs achieved the level of performance required for admission to freshman English Composition. One hundred twenty-six students were served in health workshops.

Conclusions: "It appears that a reasonable number of the DSS students, who normally would be expected to fail, were able to maintain acceptable grade point averages with respect to the number of credit hours earned." (p. 7)

"Each quarter a student evaluation is conducted . . . ." Each quarter students have indicated the following: (1) Seminars are worthwhile and helpful; (2) Seminars have helped them improve their grades; (3) Seminars are an essential part of the instructional program." (p. 32)

Comment: The results in terms of benefits to students are described primarily in terms of what happened to students rather than what students accomplished. There is general agreement that the things that happened to students are likely to promote worthwhile accomplishments by students. However, more information about student accomplishments would seem to be available in areas where criterion performances are possible as in writing and math. The counts reported would indicate this.

REFERENCE: Pfannenstein, Anne

TITLE: Supervisor, Developmental Education

SCHOOL: Columbus Tech

TITLE OF STUDY: Developmental Reading: Pre & Post Test Results

DATES OF STUDY: Fall 75, Winter 76, Spring 76

DATE OF REPORT: August 16, 1976

Population: Students at Columbus Tech who enrolled in Developmental Reading and completed pre & post Nelson Denny Reading tests.

Sample: Only students who completed both pre & post tests.

Design: Average gains were computed using pre & post test scores.

Treatment: Completion of 11 week comprehensive course in improving reading and study skills.

Measurements: Forms A & B, Nelson-Denny Reading Test

Results: (See Attached)

Conclusions: The students who complete Developmental Reading show considerable gains in grade levels.

Further Comments: Every effort will be made in the coming year to have a higher per cent of students in Developmental Reading take the pre & post tests both. This will give us a larger sample to provide a better base for comparison.

Results:

Fall ' 75

No. Students	Average Gain
59	1.80 yrs.

Winter '76

No. Students	Average Gain
61	1.35 yrs.

Spring '76

No. Students	Average Gain
43	1.60 yrs.

$3\overline{)4.75}$ years total gain in reading level

163

There was a total of 12 students for the three quarters who showed a slight decrease.

CUYAHOGA COMMUNITY COLLEGE

EASTERN CAMPUS

DEVELOPMENTAL EDUCATION

REFERENCE: Dr. Lynn Rosen

TITLE: Assistant Dean for Curriculum and Instruction--Learning Resources

SCHOOL: Cuyahoga Community College, Eastern Campus

DESCRIPTIVE TITLE OF STUDY: A Study of the Effects of Developmental Education Services on Students in Accounting Courses

PERIOD OF TIME: Fall Quarter, 1975 through Spring Quarter, 1976

DATE OF REPORT: August 18, 1976

POPULATION: 238 students in Accounting courses accessing Developmental Education services

SAMPLE: No sample population was identified

DESIGN: Cost/Effectiveness analysis was applied to all components of Developmental Education (see attached model). Student progress in Developmental Education Accounting was rated by logging competency achievement. Competency levels in accounting were identified by reporting Chapter levels for students receiving assistance in Accounting (S/L = Start Level, E/L = Exit Level).

TREATMENT: Tutorial assistance on a voluntary basis

MEASUREMENTS: Course competency levels

PROGRAM GOALS:

1. Assistance in basic skill areas and improvement in academic achievement
2. Development and use of multiple learning strategies which respond to individual differences in learning styles
3. Assistance in the development of process skills
4. Development and reinforcement of positive attitudes toward self

RESULTS: Of a total population of 238 students accessing Developmental Education services in Accounting courses, 93 students (approximately 40%) demonstrated improved competency in Accounting when start levels and exit levels are analyzed.

Improved Competencies	Contact Hours	Costs
93 students	373	$1,114

CONCLUSIONS:

1. As instructional support in Accounting incorporates support in Mathematics, students utilizing the Developmental Education program have demonstrated improvement in basic skills (Mathematics) and in course work competencies.

2. As the Developmental Education program provides an alternate instructional strategy (one-to-one tutoring and/or small group tutoring), students utilizing the program have demonstrated positive outcomes from the application of alternative instructional strategies.

3. As all tutorial assistance includes assistance in process skills (study skills, outlining, reading for comprehension) students utilizing the Developmental Education program's Accounting component have demonstrated positive outcomes from assistance in process skills.

4. As students have demonstrated improved competency, it can be reasonably assumed that students receiving positive reinforcement and reward develop positive self-images (White's Competency Theory).

COMMENTS: Though 40% of the population demonstrated improved Accounting competencies, it can not be assumed that the remainder of the population received services and did not improve. The Eastern Campus Developmental Education program is a voluntary program and students may utilize the program for one contact. Start and exit levels would, in those cases, remain constant. Therefore, we do not have sufficient data to analyze competency development in the remainder of the population.

REFERENCE: Margaret E. Ralston

TITLE OF REFERENCE PERSON: Assistant Dean for Developmental Services
Human Relations Department

SCHOOL: Kent State University

DESCRIPTIVE TITLE OF STUDY: Effect of a Developmental Program on University Student Grades

PERIOD OF TIME COVERED BY STUDY: One Quarter

DATE OF REPORT: 1974

Population: Students participating in a non-credit developmental education program.

Sample: 379 "developmental" students with sample of 379 non-participant group matched on class and previous GPA.

Design: Differences in pre- and post- GPA's were compared. GPA changes in the participant and non-participant groups were analyzed and compared.

Treatment: Participation in an individualized program which might include personal/social counseling, study skills development, reading development, and tutoring.

Measurements: Changes in quarterly grade point averages; multiple correlation between mean GPA increase and the following variables -- number of study skills sessions, number of reading sessions, number of counseling sessions, total number of sessions, class (freshman, etc.) sex, age, and whether or not the student was tutored in a particular course.

Program Goals (i.e., higher GPA, retention, etc.):

Increased retention and higher GPA

Results: Mean GPA's for participant group moved significantly upward, compared to non-participants. Number of study skills sessions had the highest positive correlation with mean GPA. However, no single variable was found to be consistently correlated with increase in mean GPA. These results showed that no single variable of those studied can be used to predict a significant mean GPA increase.

Conclusions: Student participation in a developmental program which consists of more than one developmental component is beneficial.

REFERENCE: Simmons, George

TITLE: Director, Developmental Education

SCHOOL: Lorain County Community College

TITLE OF STUDY: Retention/Attrition Associated with Developmental Education Courses

DATES OF STUDY: Academic Years 1971-72 and 1972-73

DATE OF REPORT: December 1, 1973

Population: Students in need of Developmental Education.

Sample: The 718 students who were identified by placement testing as in need of Developmental Education for the academic year 1972-72 and 696 students for 1972-73.

Design: Did more students who took the Developmental Education course which they were tested as needing (Group A) stay in college until the Spring Quarter, compared to those students who did not take the course (Group B)? All students who were identified as developmental by the placement test were included.

Treatment: The developmental education courses were not described.

Measurements: The placement tests used were not identified, nor was retention defined.

Results: The Retention Rate of Group A exceeded the Retention Rate for Group B:

	Group A	Group B
1971-1972	164 80%	352 69%
1972-1973	124 82%	390 72%

The Chi square values were significant both years. In 1971-72, the retention rates in the Fundamentals of Effective Reading and the Fundamentals of Writing were significantly higher for Group A than for Group B. In 1972-73, the retention rates in the two courses were higher for Group A, but not significantly. The lower number of students in the other four courses in 1972-73 rendered chi square inappropriate for evaluating the individual course effects. However, in 1972-72, the chi square evaluation of the Fundamentals of Mathematics and Basic Algebra indicated no statistically significant effect.

The students were most likely to follow the placement recommendation for the Reading and Writing courses. Thirty-three to fifty-seven percent of the students followed the recommendation for these courses compared to six to twenty-seven percent for the other courses.

Conclusions: None were stated.

Comment: For the years cited, the effect of the Fundamentals of Effective Reading and the Fundamentals of Writing courses were evidently effective in differentiating between those students who tended to stay in college through the Spring term and those who didn't. If a student joined in the recommended course, he/she was more likely to stay in school. However, the effect of student self-selection bias is not evaluated.

REFERENCE: (Person to contact or author): George A. Simmons

TITLE OF REFERENCE PERSON: Director of Developmental Education

SCHOOL: Lorain County Community College

DESCRIPTIVE TITLE OF STUDY: Comparison of Pre- and Post Test Scores for Students Enrolled in L.C.C.C.'s DVED 050 Math Course

PERIOD OF TIME COVERED BY STUDY: Fall quarter 1974-75 through Fall quarter 1975-76

DATE OF REPORT: 8/17/76

Population: All students enrolled in L.C.C.C.'s Developmental Education Math Course, DVED 050, Fundamentals of Mathematics, for the period from fall quarter 1974-75 through fall quarter 1975-76. These were presumably all students having major deficiencies with basic arithmetic skills. Most students enrolled on the advice of their college counselor, although some were self selected.

Sample: All students from the above population for whom both pre- and post test scores were available. This included a total of 166 students.

Design: The Cooperative Mathematics Test: Arithmetic (Educational Testing Service) Form A was administered as a pre-test, and Form B was administered as a post-test.

Pre- and post test raw scores for the total sample were compared and a t test for correlated samples was used to test for significance of difference between pre- and post test scores. The test used was:

$$t = \frac{\bar{D}}{S_{\bar{D}}} \quad \text{where} \quad \bar{D} = \frac{\Sigma(\text{post test} - \text{pre test})}{N}$$

and where

$$S_D = \sqrt{\frac{\Sigma D^2 - (\Sigma D)^2}{N-1}}$$

Treatment: Students completed the 10 week quarter of instruction in basic arithmetic skills using a modular instructional approach utilizing the modules from Developmental Arithmetic: An Individualized Approach, McGraw-Hill and supplemented by instruction provided by the course instructors.

Measurements: Pre-test: Cooperative Mathematics Tests: Arithmetic - Form A
Post-test: Cooperative Mathematics Tests: Arithmetic - Form B

Program Goals (i.e., higher GPA, retention, etc.):

To develop increased knowledge and skills in basic arithmetic

Results: Analysis of difference between pre- and post test raw scores revealed that there was an improvement significant at the .05 level.

Conclusions: Completion of the DVED 050 Fundamentals of Mathematics course did result in a significant increase in basic arithmetic skills.

REFERENCE: Simmons, George

TITLE: Director, Developmental Education

SCHOOL: Lorain County Community College

TITLE OF STUDY: Follow Up Study

DATES OF STUDY: 1972-73 Academic Year

DATE OF REPORT: No Date

Population: Students in need of Developmental Education.

Sample: 66 students who earned a raw score below 30 on the Missouri College Engoish Placement test and were, therefore, defined as needing the Development Education 080 Course. No other characteristics were reported.

Design: The sample was divided into a group which enrolled in the 080 course and a group which didn't. The grade distribution of the two groups after enrolling in the first English course was compared.

Treatment: No description was included.

Measurements: Missouri College English Placement Test grades in the first English course.

Results: GPA of the 18 students enrolled in the 080 course averaged a 1.5 (S.D. .9852), while the other group of eleven students averaged 1.36 (S.D. 1.12), in their first English course. The difference is in the expected direction but not large enough to be statistically significant.

Conclusions: None stated.

Comment: Grades in the first English course may well be regressed using the Missouri College English Placement Test Scores.

REFERENCE: Walton, Ruth

TITLE: Coordinator, Developmental Education

SCHOOL: Marion Technical College

TITLE OF STUDY: Survey of Former Students (Graduates and Non-Graduates) and Current Students

DATES OF STUDY: Spring Quarter, 1976

DATE OF REPORT: April 16, 1976

Population: Students of Marion Technical College who graduated, who attended but did not graduate, and who were currently attending, Spring 1976.

Sample: The entire population was contacted with the following response:

Category	Population	Respondents	Percent
Current Students	524	369	70%
Former Students	1250	232	19%
Graduates	161	106	66%

Design: The procedure of the survey was not described. The responses were summarized by category of student.

Treatment: No treatment was described.

Measurement: (1) A 90-item questionnaire was used.
(2) Students were classified; the basis was not described.

Results: (See attached)

Conclusions: No conclusions were stated.

Comment: On the basis of the data presented, the results appear to support other interpretations:
(1) Among those who took Developmental Education courses, the distribution of courses was as follows:

D.E. Courses	Students					
	Current		Former		Graduates	
Reading	27	(29%)	13	(41%)	22	(51%)
Math Review	26	(28%)	7	(22%)	1	(2%)
Science Review	11	(12%)	3	(9%)	0	(0%)
Vocabulary Improvement	18	(20%)	5	(16%)	7	(16%)
Memory Training	4	(4%)	7	(22%)	6	(14%)
Study Skills	29	(32%)	10	(31%)	14	(33%)
Spelling	15	(16%)	3	(9%)	6	(14%)
Total Enrollments	130		48		56	
Total Enrolled	92	(100%)	32	(100%)	43	(100%)

(2) The 92 current students who enrolled in a Developmental Education course reported 130 courses taken, or 1.4 enrollments per student. The 32 former students reported 48 enrollments for an average of 1.5 enrollments per student. The 43 graduates reported 56 enrollments; an average of 1.3 per student.

(3) The Math Review and Science Review courses were evidently not equally available to all three groups of students. Removing these two courses from the calculation, the averages are 1.0 for current students, 1.2 for former students, and 1.3 for graduates. It appears that graduates have enrolled for more developmental courses on average than have currently enrolled students, although the difference is not very different from a chance variation. (Chi square with one degree of freedom is 1.94) The result is, however, very encouraging since it supports the other indication that Developmental Education courses assist the students in completing programs and graduating.

(4) The difference between the number of students who took developmental education courses and graduated, and those who did not graduate is remarkable, indicating that the courses facilitate graduation. Forty-one percent of the graduates, compared to 14 percent of the former students took developmental education courses. The differences among the three groups is significant beyond the one percent level. (Chi square with two degrees of freedom is 29.7).

Results of survey - Marion Technical College - Spring Quarter, 1976

Questions distributed to:	Questions completed by:
524 Current students	369 Current students - 70%
1250 Former students	232 Former students - 18.5%
161 Graduates	106 Graduates - 65.8%

Questions 63 through 68 involved Developmental Education:

63. Were you aware that you could take review courses in Math, Science, Reading, Vocabulary, and Spelling through the Developmental Education Program?

	Yes	No	No Answer
C	265 - 71.8%	91 - 24.6%	13
F	96 - 41.3%	111 - 47.8%	25
G	60 - 56.6%	39 - 36.7%	7

64. Did you take any courses through the Developmental Education Program?

	Yes	NO	No Answer
C	92 - 24.9%	262 - 71.0%	15
F	32 - 13.7%	175 - 75.1%	25
G	43 - 40.5%	59 - 55.6%	4

65. If your answer to #64 was yes, which courses did you take?

	Reading	Math	Science	Vocabulary Improvement
C	27 - 20.7%	26 - 20.0%	11 - 8.4%	18 - 13.8%
F	13 - 27.0%	7 - 14.5%	3 - 6.2%	5 - 10.4%
G	22 - 39.2%	1 - 1.7%	0	7 - 12.5%

	Memory Training	Study Skills	Spelling
C	4 - 3.0%	29 - 22.3%	15 - 11.5%
F	7 - 14.5%	10 - 20.8%	3 - 6.3%
G	6 - 10.7%	14 - 25.0%	6 - 10.7%

(Note: Math Review and Science Review had been offered only once before survey was sent out.)

66. Did you find these courses helpful?

	YES,	NO
C	74 - 80.4%	18 - 19.5%
F	24 - 77.4%	7 - 22.5%
G	27 - 77.1%	8 - 22.8%

67. Were you aware of the free Tutoring Service provided by the Developmental Education Program?

	YES	NO	No Answer
C	309 - 83.7%	46 - 12.4%	14
F	74 - 31.8%	137 - 59.0%	21
G	50 - 47.1%	55 - 51.8%	1

(Note: the Tutorial Program has been in existence for only 5 quarters.)

68. If your answer to #67 was yes, did you use the service in any way?

	YES	NO	As one who needed assistance	AS a tutor
C	71 - 22.9%	221 - 71.5%	40 - 56.3%	31 - 43.6%
F	20 - 27.0%	60 - 81.0%	11 - 55.0%	3 - 15.0%
G	10 - 20.0%	38 - 76.0%		10 - 100%

REFERENCE: Mrs. Faye Curran

TITLE OF REFERENCE PERSON: Coordinator, Developmental Education

SCHOOL: Miami University -- Middletown

DESCRIPTIVE TITLE OF STUDY: GPA, Tutored Students

PERIOD OF TIME COVERED BY STUDY: Fall Terms 74 through Fall 75

DATE OF REPORT:

Population: Students tutored in Fall Terms 1974 and 1975

Sample: 160 students

Design: High School transcripts, A.C.T. scores, and faculty evaluations were used to assess students and predict grades. Final grades received in a course following tutoring was compared to predicted grade at the beginning of course.

Treatment: Tutoring

Measurements: A.C.T. scores, high school grades, and course grades.

Program Goals (i.e., higher GPA, retention, etc.):

Higher GPA, and retention

Results: Of 74 students receiving tutoring at Miami University -- Middletown in Fall, 1974, and 86 students being tutored in Fall, 1975, 54 percent and 53 percent respectively achieved final grades above expectations with tutorial assistance.

Conclusions: None

Further Comments: None

REFERENCE: Margaret G. Beekley

TITLE OF REFERENCE PERSON: Director, Educational Enrichment Laboratory

SCHOOL: Ohio State University - Mansfield Regional Campus

DESCRIPTIVE TITLE OF STUDY: The Educational Enrichment Laboratory

PERIOD OF TIME COVERED BY STUDY: 1975-76

DATE OF REPORT: August, 1976

Population: Thirty-nine student using the Educational Enrichment Laboratory.

Sample: Same

Design: Students were asked to respond to survey questionnaires concerning their experiences in the labs.

Treatment: Individual work in the Educational Enrichment Laboratory.

Measurements: Student evaluations

Program Goal: Higher GPA

Results: Margaret Beekley found that all 39 students completing and evaluation of the Educational Enrichment Laboratory felt "that classwork had improved."

REFERENCE (Person to contact or author) Mary N. Roberts

TITLE OF REFERENCE PERSON: Assistant Director, Developmental Education

SCHOOL: The Ohio State University - Marion Campus

DESCRIPTIVE TITLE OF STUDY: Tutorial Program

PERIOD OF TIME COVERED BY STUDY: Summer 1975 - Spring 1976

DATE OF REPORT: August, 1976

Population: All students enrolled Summer 1975 - Spring 1976

Sample: Same

Design:

Treatment: Tutoring

Measurements: Dismissals at Marion Campus

Program Goals: Retention

Results: This study reported by Ohio State at Marion found "an extremely low dismissal rate" (averaging less than 4/10% Summer, 1975, through Spring, 1976). The report identifies the tutorial program as a positive factor.

Conclusions: None

Further Comments: None

REFERENCE: Hollow, Betty

TITLE OF REFERENCE PERSON: Reading Program Director

SCHOOL: Ohio University

DESCRIPTIVE TITLE OF STUDY: Annual Report: Student Development Center Reading Program

PERIOD OF TIME COVERED BY STUDY: Academic Year 1975-76

DATE OF REPORT: June 11, 1976

POPULATION: Participants in Ohio University's Student Development Center Reading Program, including those working individually and students enrolled in both the credit and the non-credit reading courses.

SAMPLE: All students in the above population.

DESIGN: Two courses were offered students, particularly freshmen, who needed assistance in reading skills. The one-credit hour course "Speed Reading Through Comprehension," and the non-credit course "Vocabulary Development" were both taught Winter and Spring Quarters. In addition, self-referred and faculty-referred students were assisted individually with the Director. In all cases, pre- and post-tests were administered to measure gains in speed and comprehension.

A total of 189 students participated in the Reading Program. Of those, 7 were in the non-credit vocabulary course, 25 were enrolled in the Speed Reading course for credit, and the remaining students worked on an individualized basis. The non-credit course met twice weekly for six weeks; the credit course met three times weekly for five weeks. Enrollees were permitted and encouraged to continue their reading programs following termination of the course.

TREATMENT: A wide variety of methods and materials were employed, the choice of which was determined by the following factors: (1) specific areas of weakness, (2) extent of difficulty, (3) degree of student's self-direction, (4) student's preference. Materials used included College Skills' Passages for Comprehension, the SQ3R studying method, Lyle Miller's Building Reading Efficiency, Controlled Reader materials, Sack-Yourman Developmental Reading course and teacher-made materials.

Records were kept of each student's diagnostic tests, counseling notes, and cumulative work. The Director checked the students' folders and met with each student weekly.

MEASUREMENT: The Nelson-Denny Reading Test, forms A and B.

PROGRAM GOALS: To raise students' levels of competency in reading skills and to improve students' attitudes toward reading.

RESULTS:

"Speed Reading Through Comprehension"

	Pre-Test	Post-Test	Gain
Winter			
Average Speed	215 wpm	375 wpm	160 wpm (75%)
Average Comprehension	70%	85%	15%
Spring			
Average Speed	282 wpm	484 wpm	202 wpm (71%)
Average Comprehension	65%	80%	15%

Ninety-two percent of the student evaluations indicated satisfaction with the courses.

Students working in the Reading Program on an individual basis averaged a gain of at least one grade level in their reading skills.

CONCLUSIONS: Evaluative feedback from students and test data indicate that in most instances significant gains in reading skills were achieved by program participants. Many variables affected the extent of improvement; students enrolled in the credit course maintained higher interest, completed more work, and improved skills more significantly than those not rewarded with credit. A direct relationship was evident between the extent of contact with the Reading Director and reading improvement.

REFERENCE: Willis, Betty Fain
and Blake, William

TITLE OF REFERENCE PERSONS: Counselors

SCHOOL: Ohio University

DESCRIPTIVE TITLE OF STUDY: Report on "Project Outreach," conducted by Student Development Counselors in conjunction with the Black Resource Center.

PERIOD OF TIME COVERED BY STUDY: Academic Year 1975-76

DATE OF REPORT: May 12, 1976

POPULATION: Black freshmen students experiencing academic, social, and personal adjustment difficulties during their first year.

SAMPLE: All students in the above population.

DESIGN: Each black freshman was contacted at least twice quarterly to check on academic progress/problems and general adjustment. More frequent contact was made when deemed necessary; referrals were made to other student support offices; confidential files were kept on each student. Tutoring in basic skills was provided, as well as several special programs concerning topics such as "Learning to Live Together," "Planning Your Future," and "Survival: Learning to Help Yourself." Participating students completed year-end evaluations of "Project Outreach."

MEASUREMENTS: An evaluative survey designed by the counseling staff, which was composed of seven short-answer questions, provided subjective data regarding the program's strengths and weaknesses.

PROGRAM GOALS: To facilitate academic, social, and personal adjustment to Ohio University, leading to academic success and personal satisfaction.

RESULTS:

Academic - Over 50% of participants' GPA's for Winter Quarter improved over Fall Quarter. Evaluations indicated that the observed academic improvement/success was due to encouragement and referrals to other sources of help.

Social - Fewer racial incidents occurred within the freshman dormitory system this year.

Personal - Student evaluations indicated the helpfulness of the counselors in adjusting to the new environment.

CONCLUSIONS: An intensive effort to provide para-professional or peer counseling contacts to new minority students results in diminished adjustment difficulties, and provides a basis for academic improvement, and thereby improves the chances for retention.

OUTLINE

REFERENCE (Person to contact or author): Dr. Herman L. Koby

TITLE OR REFERENCE PERSON: Vice President for the Community College

SCHOOL: Rio Grande Community College

DESCRIPTIVE TITLE OF STUDY: Reading Score Gains of Students Assigned to Developmental Education

PERIOD OF TIME COVERED BY STUDY: Fall Quarter 1972

DATE OF REPORT: May 1973

POPULATION: All entering students reading below 12th grade level as determined by results on the Nelson Denny

SAMPLE: 51 students were included in the program for fall quarter

DESIGN: Pretest and post test of students after completion of a variety of individualized reading materials

TREATMENT: Student completion of appropriate individualized reading materials to improve reading rates

MEASUREMENTS: Pre and post test on two forms of Nelson Denny

PROGRAM GOALS: To increase reading rate
(i.e., higher GPA, retention, etc.)

RESULTS: The mean of reading score of the group was 8.3 at the beginning of the fall quarter. In a December testing the average rate was 11.5 of the 51, six had dropped out of the program.

CONCLUSIONS: The individualized programs were effective in increasing reading rate of entering students testing low in the entering class of 1972-73.

REFERENCE: McCoy, Arnold

TITLE: Dean of Student Services

SCHOOL: Shawnee State General and Technical College

DESCRIPTIVE TITLE: Peer Tutoring Program: Evaluation by Students and Progress Report by Tutors

PERIOD OF TIME: July 1, 1975, to July 1, 1976

DATE OF REPORT: August, 1976

Population: Students and tutors who participated in the program. This service was provided by a Director on both North and South Campuses.

Students and Tutors Involved: Any student experiencing academic problems could apply for a tutor. If the instructor of the course requested a tutor, the Director of the program would obtain a qualified person to assist the student.

Tutoring in Academic Subjects

Academic Tutoring Subject	Number of Students Availing Themselves of Tutoring Service	Total Contact Hours Per Subject
Algebra	40	162
Anatomy & Physiology	5	51
Biology	7	42
Chemistry	77	483
English	30	158
Health	1	4
Psychology	17	121
Trigonometry	4	38
Math (Basic)	10	53
Nursing	5	89
Physics	6	50
Sociology	3	23
Accounting	22	133
Essential Math	2	15
TOTAL	229	

Program Goals: To give one-to-one assistance to the student and to provide a report of his progress to the instructor.

Evaluation: The program was evaluated by the student being tutored and a report of the progress of each student which the tutor made both to the Director of the program and to the instructor who had requested the tutor. A copy of both forms is attached.

Conclusions: The student evaluations showed that the students were quite enthusiastic about the service. Most of them expressed the opinion that a peer tutor could explain a concept in language which they could understand and gave them the confidence which they needed to study productively on their own. They also seemed to feel that there was a better understanding of study techniques which carried over to help them succeed in their other courses.

Many of the instructors stated that the progress reports submitted by the tutors not only helped them in working with the individual student being tutored but also gave them insight into some of the difficulties other students were having.

Further Comments: Although the Division of Student Services is encouraged by the reception of the Peer Tutoring Program by both students and faculty during its first full year of operation, it realizes the need for more definitive measures of evaluation and a follow-up study of those students using the service.

REFERENCE: McCoy, Arnold

TITLE OF REFERENCE PERSON: Dean of Student Services

SCHOOL: Shawnee State General and Technical College

DESCRIPTIVE TITLE: Developmental Education Courses: Student Evaluation

PERIOD OF TIME: July 1, 1975 to July 1, 1976

DATE OF REPORT: August, 1976

Population: Students enrolled in Developmental Education Courses, 1975-1976.

Students Involved: Students were identified by the Division of Student Services as needing additional work before enrolling in their specific technologies by inspecting their previous school records, the number of years which they had been out of formal schooling, or their scores on the NLN (prospective nursing students). Student Services then recommended that they take one or more Developmental Education Courses to meet these deficiencies.

Enrollment:

Developmental Course Subjects (Non-Credit)	Number of Weeks Duration	Number of Students Enrolled	Number of Contact Hours
Pre-College Biology	12	45	5
Pre-College Math	12	152	5
Pre-College Chemistry	12	154	5
Pre-College Physics	12	35	5
Pre-College Study Techniques	12	59	5
TOTAL		445	

Program Goals: To help students in developing a positive attitude toward college work and adjusting to college-level courses.

Evaluation: For its first full year of operation, July 1, 1975, to July 1, 1976, Shawnee State relied on student evaluation of the Developmental Education courses to determine their effectiveness. A sample of the evaluation form is attached.

Conclusions: Most of the students had positive comments on the value of the courses to them. One stated that the Study Techniques course had given him confidence and encouraged him to continue in college. Another said that as a result of the course he was able to enter the Goodyear Atomic Training course. The consensus was that these courses served as a needed bridge between high school and college.

Some of the students made constructive suggestions for improving the courses which should help Student Services in setting up future courses.

Further Comments: The Division plans to continue offering Developmental Courses. The need to offer more sections of the Study Techniques course has been shown. During 1976-77 a study of the retention of these students in their respective technologies will be made.

Reference: Cindy Abell

Title: Director, Learning Center

School: Southern State College, North Campus

Title of Study: Developmental Program--Design Preparation and Implementation

Dates of Study: Academic Year 1975-76

Date of Report: September, 1976

Since the 1975-76 year was the first for the existence of Southern State College, the usual research format cannot be followed. Instead, a brief description will be given of the stages of planning and implementing the Developmental Program at this institution.

Goals -- The primary goal has been to give any student who needed it the extra help and encouragement in learning necessary to ensure success in post-secondary education.

Scope of Program -- The first phase of the program, during the fall and winter quarters, was designed to provide academic tutoring to any student needing and requesting help. Most of these students were referred to the Learning Center because of academic difficulties at mid-quarter. Help was offered in all subject areas and 52 students requested tutoring. For those needing help in reading the Nelson-Denny Test and informal reading tests were given to determine strengths and weaknesses. In most cases no formal post-testing was done. Passing the course was the goal and the efforts exerted by both students and one full time tutor and three part-time tutors resulted in success in most cases. No formal post-testing was done. Survival was the important thing.

The second phase of the program was designed to give supportive services in the areas of communications and math skills. This phase is described under the Pilot Studies below.

Identification of Students Needing Developmental Assistance -- Since the average age of our students is 27 years, few students have ACT or SAT scores. The first two quarters instructor referrals and requests for help from students, responding to posters and flyers announcing the tutoring available, brought the students to the Learning Center.

During the winter quarter and spring quarter diagnostic tests identified math students needing help. During the spring and summer quarters, the Nelson-Denny test was used with communication students. This test and a school designed test of arithmetic and algebraic skills are satisfactory for identifying needs at present.

Management -- The Learning Center was designated as the primary management agent for developmental studies and appropriate learning materials were chosen for and organized in the center with audio visual equipment for self-instruction. The Learning Center staff set up a workable format for getting the students who needed help into the center.

Pilot Study A -- In the winter quarter, 1976, the 19 students enrolled in Topics of Mathematics 121 were tested and 15 were found to be deficient in one or more basic arithmetic skills while the other 4 needed further preparation in algebra skills to continue their chosen programs of study. Through the coordination of the instructor of the course and the Learning Center staff, students were directed to the Learning Center to receive help. In an evaluation at the end of the quarter, the 14 students who completed the course (5 withdrew because of money, health or job problems) expressed verbally and in written reports that they found the individualized format very helpful and indicated that they would have liked more time in the Learning Center.

Pilot Study B -- In the spring quarter, 1976, the 15 students who enrolled in Topics 122 were tested and the entire class was offered on an individualized basis in the Learning Center. Students pursued regular studies with supportive developmental work given as needed within the framework of the course. Student evaluations were over whelmingly in favor of the plan. The success rate was high (11 out of 15 received A or B grades).

Pilot Study C -- In the summer term, 1976, students enrolled in communications 107 and 108 on an individualized basis in the Learning Center. Developmental support in the form of special tutoring was given as needed to the 29 students enrolled. Response from students was over shelmingly positive.

Conclusions --

1. Identification of needs and progress by means of more adequate testing is essential. The McGraw Hill Tests of Basic Skills, the Comparative Guidance and Placement Program and the Career Placing Profile will be assessed for use with our students. Although unit pre-and post tests over the course work and written evaluation measure student success, we do not have formal post-test records.

2. Developmental support services can be offered within the framework of the present courses in Math and Communications if the classes are individualized and housed in the Learning Center with materials and staff available.

3. Close coordination between the instructors of the regular courses and the developmental program is essential.

Plans for 1976-77

1. On the basis of the conclusions stated above, all the students taking Communications 107, 108, 109 and all the math students, except those taking Business Math, are to meet in the Learning Center for individualized work. Between 150 to 200 students are expected to participate during the Fall Quarter, 1976. Instructors of these courses will be employed as full time Learning Center Staff and will direct students into Developmental studies as needed.

2. During the Fall Quarter, phase one will again be implemented. Through posters and hand-outs to students, the Learning Center hopes to attract many students in all courses who need tutoring. Part time tutors will be available in all areas as a part of our Developmental Program. Instructor referrals will again be helpful in reaching students needing help.

Comments

Since this institution is so new, predictions are difficult. However, the early indications are that a majority of the students entering here will need some supportive developmental assistance to be successful. Many of our students have been out of school for a number of years. Many students who did not take college prep courses in high school are finding the idea of continuing their education an attractive and feasible idea in our Community College setting. We are anticipating a rapid growth both in this quantity of students and in the quality of services we can offer through such programs as Developmental Education.

REFERENCE: McKoski, Martin

TITLE: Director, Office of Developmental Programs

SCHOOL: The University of Akron

STUDY: Follow-Up Study on Developmental Mathematics

DATE OF STUDY: Fall and Winter Quarters 1975-1976

DATE OF REPORT: April 23, 1976

Population: 232 students enrolled in Developmental mathematics courses in the Fall Quarter of 1975.

Sample: All students in the population were studied.

Design: The students were followed in 7 groups, based upon Fall Quarter 1975 results in Developmental Math. The 7 groups were categorized as those who:

1. completed Developmental Math with a grade of A
2. completed Developmental Math with a grade of B
3. completed Developmental Math with a grade of C
4. completed Developmental Math with a grade of D
5. completed Developmental Math with a grade of F
6. completed Developmental Math with Incomplete
7. completed Developmental Math with Withdrawal

The student retention in the University and the registration for math courses in the Winter Quarter were recorded for each group. The results were reported along with recommendations for changes in the Developmental Math program.

Measurements: (1) The grade attained in Developmental Math was used to assign the student to groups.

(2) The course a student registered in for Winter Quarter 1976 was an outcome, as was failure to register. (The range of courses included no math course Winter Quarter, and did not attend Winter Quarter).

(3) The student's grade in the math course taken in Winter Quarter following Developmental Math was also an outcome.

Results: (1) The following results were recorded for 232 students enrolled in Developmental Math in the Fall Quarter 1975:

Outcome	Number of Students	Percent
Grade of A	40	17%
Grade of B	54	23%
Grade of C	34	15%
Grade of D	12	5%
Grade of F	34	15%
Incomplete	42	18%
Withdrawal	16	7%
	232	100%

(2) There were 84 students (60%) of the 140 who received a passing grade in the Fall who subsequently enrolled in a credit course Winter Quarter. Of these 84, 50 (60%) attained a passing grade. Of the 92 students who received an F, an Incomplete, or who withdrew, 9 subsequently enrolled in a math course for credit in Winter Quarter. Of these 9, 1 (11%) received a passing grade.

(3) 21 of the 42 students who received an Incomplete in Developmental Math in the Fall subsequently returned to Developmental Math Winter Quarter, a 50 percent rate of return. Of the balance, 6 withdrew from the University and 15 allowed the Incomplete to change to an F.

(4) 53 (38%) of the 140 students who received a passing grade in the Fall did not subsequently enroll in a math course.

(5) One of the 55 students who received a grade of F in Developmental Math subsequently passed a credit math course.

Conclusions: (1) Sixty percent of the students who enrolled in Developmental Math for the Fall Quarter 1975 received a passing grade.

(2) Those students who received higher grades in Developmental Math are likely to enroll in a math course the following quarter, and receive a higher grade in that course.

(3) The Incomplete status provided almost half of the students who received it an effective opportunity to avoid an F grade.

(4) Some students in Developmental Math seemed to need a slower pace. Recommendations for accomplishing this included the creation of a Math Lab and/or dividing the Developmental Math course into a general math skills course and a beginning algebra course.

REFERENCE: McKoski, Martin

TITLE; Director, Office of Developmental Programs

SCHOOL: The University of Akron

STUDY: Survey of Opinions from Students and Instructors Evaluating the Reading and Writing Laboratory

DATES OF STUDY: Not identified

DATE OF REPORT: May 21, 1976

Population: 500 students who used the Reading and Writing laboratory at Akron University.

Sample: 75 students selected at random and their instructors in English.

Design: The sample was assumed to represent the student population, although no validation of the representativeness was included in the design. The number of visits to the lab was cross tabulated with the improvement in letter grades in English courses. No hypotheses were stated, although the questionnaire asked the students to report the service they received, improvement in their writing, negative feelings about the lab, and improvements they would suggest. Their instructors were asked whether they had referred any students to the lab, if they noticed any improvement due to involvement with the lab, whether they feel that the lab program has "validity", and if so, whether they would choose to expand it, to suggest what sort of things it should incorporate and to state what they feel are weaknesses of the current lab project.

Measurements: (1) Separate questionnaires were developed for students and for English instructors of those students.
(2) Grades were reported by students and by their instructors.
(3) The number of lab sessions for each student was obtained.

Results: (1) Students with a minimum of 3 to 4 visits to the lab showed marked improvement in writing and reading proficiency.
(2) Of the sample who averaged 6 or more lab sessions, 20 percent improved by two letter grades in their credit English courses.
(3) All responses were positive from both the students and from the faculty members.

Conclusions: The conclusions stated were the descriptive results. No generalizations were stated.

REFERENCE: McKoski, Martin

TITLE: Director, Office of Developmental Programs

SCHOOL: The University of Akron

STUDY: Developmental Courses: Pre- and Post-Test Results

DATES OF STUDY: Fall Quarter 1975

DATE OF REPORT: April 23, 1976

Population: Students at the University of Akron in Developmental Education courses including (1) Reading and Study Skills, (2) Mathematics, and (3) English, completed pre- and post-tests. Students were not described in terms of other characteristics.

Sample: All students in the population were studied.

Design: The differences between pre- and post-tests were summarized and compared to "expected gains." (The comparison was the first step to subsequent "follow-up" study.) The students presumably received a full treatment. The effect of improvement in test score resulting from having taken a test before was controlled by using alternate forms A and B of the McGraw-Hill tests. No compensation was provided for the regression effect which is a gain in test scores attributed to the selection of students with low scores. Also, no correction was made for those students who did not complete the post-test. The extent of this concern is illustrated by the following data presenting the number of students taking the pre-test compared to the number taking the post-test.

	Pre-Test	Post-Test	Percentage
English	73	56	77%
Math	191	137	72%
R & S Skills	60	40	67%

Treatment: The treatments in the three subject areas were described as "Developmental."

Measurements: (1) The McGraw-Hill Reading test was used in conjunction with Developmental Reading and Study Skills.
(2) The McGraw-Hill Math test was used with the Math course.
(3) The McGraw-Hill Writing test was used with the English course.

Results: Students in the Developmental courses show the following average percentile gains:

English	17.5	56 students
Math	26.8	157 students
Reading & Study Skills	12.6	40 students

Conclusion: The students in Developmental courses who take both pre- and post-tests show gains in the percentile ranks of those two tests.

REFERENCE (Person to contact or author): None

TITLE OF REFERENCE PERSON:

SCHOOL: University of Cincinnati

DESCRIPTIVE TITLE OF STUDY: Reading and Study Skills; English for Effective Communications; Campus-Wide Tutorial; and TRIO Programs

PERIOD OF TIME COVERED BY STUDY: Winter Quarter 1975

DATE OF REPORT: 1975

Population: Students served by the University of Cincinnati's four Developmental Education programs.

Sample: Same

Design: Attrition rates of students in the developmental education programs were compared to rates of students in the University College.

Treatment: Skills courses, tutoring, and personal and educational counseling.

Measurements: Attrition rates.

Program Goals: Retention

Results: The University of Cincinnati reported an overall retention of 94 percent in four developmental education programs compared to 85 percent in the remainder of the University College.

Conclusions: An examination of Winter Quarter, 1975 attrition data for students in the three programs (Reading and Study Skills, English for Effective Communications and Campus-Wide Tutorial) is exceptionally revealing. Most of the students in the three programs are University College students and thus the program attritition rates were compared to University College rates. The four programs together recorded a rate of 5.9% compared to the 15% rate for the remainder of the college. Individually the program rates were as follows: Reading and Study Skills/English for Effective Communications - 7.4%; Campus-Wide Tutorial - 6.3%; TRIO - 1.6%.

REFERENCE: James O. Wadley

TITLE: Director, Student Development Program

SCHOOL: The University of Toledo

TITLE OF STUDY: Pre College Advising (Recruitment) Including Input From Students Who Have Graduated from College.

DATES OF STUDY: Academic Year 1975-76

DATE OF REPORT: August 10, 1976

Population: This research was predicated on the assumptions that disadvantaged students are not generally highly motivated to attend college, slow in completing admission requirements and are frequently suspicious of the college environment. The task was to utilize practical means to partially solve these problems through "non-traditional recruitment methods.

Sample: Three hundred and five, both present (247) and inactive (58) students were surveyed.

Design: The student population was divided among staff, peer counselors and work study students. Each quarter, students were surveyed through telephone calls and the following questions were asked:

A. Did the developmental education program play a significant part in your decision to enter college?

Yes: 219 (72%) No: 67 Undecided: 19

B. Were you convinced, prior to college, that supportive services would increase your achievement level?

Yes: 183 (60%) No: 94 Undecided: 28

C. Did the developmental program representative/s assist you with the necessary follow-through for admission?

Yes: 294 (90%) No: 20 Undecided: 11

D. Which component did you find most helpful after entering college?

Counseling: 99 Tutorial: 74 Labs: 44
Developmental Courses: 50 Other: 38

E. Was there a noticeable improvement in your study habits and knowledge of the college campus because of developmental participation?

Yes: 244 (80%) No: 37 Undecided: 24

* Monthly visits to the high schools by staff, students and interested University faculty provided a unique approach which informed students about higher education opportunities available. Indirectly, this method enabled the faculty to better understand the disadvantaged student and thus gain a greater sensitivity for meeting his needs.

F. What word/s best describe the assistance you received from the Program?

Grateful: 92 Helpful: 100 Okay: 88 Not Necessary: 25

G. What did you dislike most about the developmental program?

Singled you out: 81 Too many requirements: 28
Hassle: 16 None indicated: 180

H. Would you recommend participation in the program to a friend who needs supportive help?

Yes: 249 (82%) No: 27 Undecided: 29

The responses were recorded and totaled. Although several of the surveyed students expressed favorable answers, many (141 or 46%) cited their participation in the summer program as extremely helpful. It was beneficial for our staff to receive direct feedback from students inasmuch as it provided input for future programming improvements.

Treatment: Students surveyed were asked to respond to the questions as objectively as possible. The limiting criteria and factors which characterized the students revolves around their eligibility for program participation. (All participants met OBR guidelines.)

Measurements: Accumulative grade point averages (2.178 on a 4.000 academic scale) were viewed as important, though it was not the only data utilized. (Student contacts in the respective supportive components were viewed as meaningful.) We were cognizant of the ethnic heritage of some of our students and arbitrarily, in a few cases, requested the callers to seek out information from students of similar backgrounds.

Results: Our largest group of respondents were freshmen. Generally, they were the recipients of most of the supportive services offered. (Upperclassmen have normally reached academic maturity level.)

The percentage of students responding favorably to the necessity of development instruction was very encouraging. Some of graduates of the program (37) resoundingly supported the concept of supplementary academic assistance. Females (70%) more often than males indicated that they adjusted rapidly and stated that the counseling efforts incorporated in all components of the program were essential for success.

While we have compiled this data for our program, it is noteworthy to realize that quarterly reports supporting the foregoing information appear to also represent those students (3%) who attended other higher education institutions. Certainly, it enhances the spectrum for comparison purposes.

Staff discussions have been formalized to include students for the resolution of negative items indicated in question "G".

Conclusion: The report supports the theory that because of developmental services, there has been a significant increase in enrollment figures of students from disadvantaged environments with college potential attending the university of Toledo. It was felt that the questions, admittedly, were somewhat biased do reflect student opinions. It was also anticipated that the data, when compiled, would be constructive as well as favorable--but not overwhelmingly positive!

Comments: A similar study is being conducted for follow-up purposes to equate the previous information with students who do not desire to participate in developmental services. (Some difficulty is expected because of increased concerns for confidentiality and the necessity to cover an entire academic year before arriving at a conclusion.) Also, recognition and consideration must be made for intervening variables and their displacement.

REFERENCE: Anne B. Shearer, Ph.D.

TITLE:

SCHOOL: Wright State University

TITLE OF STUDY: Developmental Education Course (Study Skills) Pre and Post-Test Results.

DATE OF STUDY: Fall Quarter, 1975

DATE OF REPORT: August 18, 1976

Population: Entering Freshmen students at Wright State University who were advised to register for Developmental Education course (Study Skills).

Sample: All students who registered for the Study Skills course during the Fall Quarter, 1975 (fifty-two students).

Design: The course of study is based on preliminary testing. Post tests are used to measure progress. Two basic tests were used. The Nelson-Denny Reading test was used to measure vocabulary and comprehension rate. Alternate forms A and B were used to control the improvement factor. J. N. Hook Spelling Test was also used.

Treatment: Services performed include a Developmental Education course (Study Skills) offering instruction in basic mathematics. vocabulary, reading and English composition. Tutoring and Counselling are also provided.

Measurement: Nelson-Denny Reading Test. J. N. Hook Spelling Test.

Results: The degree of improvement in spelling, vocabulary, comprehension and reading rate was evaluated on the basis of the results of the specific tests that were administered. The results in each of the test areas are as follows:

1. Spelling:

   The absolute decrease in the number of incorrect words ranged from a high of 25 to a low of 1 with an average decrease of 11 incorrect words.

Results: (cont.)

2. Vocabulary and Comprehension:

A comparison of the two controlled Nelson-Denny Reading Test resulted in the following percentile changes:

Number of Students	Percentile Gains (Range)	
13 (1 student = 0 gain)	0 - 5	
8	6 - 11	
9	12 - 17	
5	18 - 23	
1	24 - 29	(actual gain = 26)
2	30 - 35	
1	36 - 42	(actual gain = 41)
39 = 75%		

Thirteen students (25% of population) experienced a decrease in percentile rank.

3. Reading Rate:

An evaluation of the percentile changes relating to the reading rate for the same 52 students follows:

Number of Students	Percentile Gains (Range)	
7 (1 student = 0 gain)	0 - 9	
6	10 - 19	
4	20 - 29	
6	30 - 39	
13	40 - 49	
4	50 - 59	
1	60 - 69	(actual gain = 62)
3	70 - 79	
44 = 85%		

Eight students (15%) experienced a decrease in percentile rank.

Comments:

The Developmental Education program has been beneficial in improving various skill factors that are important for academic success.

75% of those tested for " vocabulary and comprehension " and 85% tested for " reading rate " experienced improvement, some significantly.

REFERENCE (Person to contact or author): Nancy M. McCracken

TITLE OF REFERENCE PERSON: --

SCHOOL: Youngstown State University

DESCRIPTIVE TITLE OF STUDY: An Alternate Approach to English 550 for the Underprepared Student

PERIOD OF TIME COVERED BY STUDY:

DATE OF REPORT: December 16, 1974

Population: Students enrolled in English 550

Sample: Students identified as "high risk" students by reading tests, A.C.T. & writing sample, enrolled in two alternate sections of English 550.

Design: Students were identified through a variety of measures: a reading grade level on the Wide Range Achievement Test below grade 10; a score on the ACT below 18, a writing sample scored by instructors as 1 or 2 on a scale of 1-4. Students were informed of the purposes of the testing, and those who qualified were given the option to switch to an alternate section which met at the same time and days as their regular sections.

Treatment: The course is divided into blocks of increasingly difficult objectives. The first block (3 weeks) centers on ability to: a. transcribe accurately spoken prose; b. recognize differences between a student's spoken version of his composition and its written version; c. summarize accurately an editorial from the Vindicator; d. use the dictionary for spelling and definition; e. write a simple paragraph of 3 sentences on an assigned topic; f. interpret non-literal meaning in short pieces of literature.

Measurements: Student's ability to perform skill operations.

Program Goals: Improvement in Basic Skills.

Results: No student was able to transcribe a paragraph read to him when class began, but all but two students could after three weeks of class. At the start of class the students could not recognize variances between their oral reading and the material they were reading; by the end of the third week, they could. Whereas only two students read a newspaper regularly at the start of class, all students in the class were reporting that they did so after three weeks.